

## REMARKS

### (A) STATUS OF THE APPLICATION

Applicants thank the Examiner for her explanation of the rejections in the Final Office Action dated December 20, 2005.

#### (I) DISPOSITION OF CLAIMS

- (i) Claims 1, 3-6, 9 and 11 are pending in the application.
- (ii) Claims 2, 7, 8 and 10 have been canceled.
- (iii) Claims 1, 3, 9 and 11 are rejected under 35 U.S.C. § 102(e), or in the alternative, under 35 U.S.C. § 103(a).
- (iv) Claims 4 and 5 and 6 are rejected under 35 U.S.C. § 103(a).

#### (II) APPLICANTS' ACTION

- (i) Claim 1 has been amended (see page 8 of patent application disclosure, line 7 to 9 for support).
- (ii) Applicants respond to the above rejections.

### (B) RESPONSE TO REJECTION UNDER 35 U.S.C. § 102 (E) AND 35 U.S.C. 103(A)

Applicants respond to Examiner's rejection of claims in the present patent application, below.

#### (I) U.S. PATENT NO. 6,592,999 TO ANDERSON, ET AL.

Claims 1, 3, 9 and 11 have been rejected under 35 U.S.C. § 102(e) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over U.S. Patent 6,592,999 to Anderson, *et al.* (*hereinafter* "Anderson").

Applicants respectfully submit that Claims 1, 3, 9 and 11 are not anticipated by Anderson. Specifically, Applicants' method is directed to the refinishing of multi-coated substrates. In the Office Action dated July 26, 2005 (to which the Examiner refers to in the present Office Action), on page 4, first full paragraph, the Examiner states that "[c]learly, all three-layer coatings can be used for refinishing because of

interlayer adhesion between any of the layers,. . .” However, Anderson does not disclose, at any place; a multi-layer coating comprising a primer and/or a primer surfacer (filler), a first solvent-based basecoat, a second aqueous basecoat and a solvent-based or aqueous clearcoat.

In fact, Applicants’ process requires the application of two basecoats whereas Anderson applies a primer and a basecoat.

The Examiner disagrees to this assertion (originally made in our response to the Office Action of July 26, 2005) with regards to Anderson, and states to the contrary that “Anderson teaches **expressly** that the process requires the application of **two basecoats**. **Therefore, Applicants’ statement that Applicants process requires the application of two basecoats whereas Anderson applies a primer and a basecoat is incorrect.**” (Emphasis in the original).

Applicants respectfully disagree to this construction offered by the Examiner. Anderson does not, either expressly or implicitly, teach a process that requires TWO basecoats. Applicants reiterate their assertion that Anderson applies a primer and ONE basecoat AND NOT TWO basecoats.

In fact, we reproduce the original wording the Examiner refers to from Anderson, below:

“The test panels, pre-coated with an **electrocoat primer** commercially available from PPG Industries; Inc., as ED5000 were coated with a primer/surfacer and a basecoat by spray application to a film thickness of 1.1 mils (27.9 microns) and 0.6 mils (15.2 microns) respectively, with **gray solventborne primer** commercially available from Akzo-Nobel Corp., and a **waterborne silver basecoat**. . . available from Solutia. . .”  
“The basecoat panels were then flashed 10 minutes at 176° F. (80° C.) before electrostatically applying the **powder clearcoating compositions**...” (Emphasis added).

Clearly, the multilayer coating of Anderson comprises:

1. pre-coated electrocoat primer;
2. gray solvent-borne primer/surfacer from Akzo;
3. water-borne silver basecoat from Solutia; and
4. powder clearcoat.

Applicants respectfully point out that the mention of “basecoat” in the above paragraph, occurring twice, refers to the same layer. In the first instance, “basecoat” is mentioned to indicate that the basecoat was applied by spray application. In the second instance, “basecoat” is mentioned to indicate that such a basecoat is water-

borne and that such a basecoat was obtained from Solutia, Inc. Applicants respectfully submit that a reference to the term "basecoat" in the above paragraph, although made twice, does refer to only ONE basecoat that which is spray-applied, that which is water-borne, and that which is obtained from Solutia, Inc.

Furthermore, the gray solvent-borne primer can not be seen as a solvent-borne basecoat. To a person skilled in the pertinent art, a primer or a primer surfacer and a basecoat are two different elements, necessarily distinct serving different functions in the automotive finish related art (See discussion, *infra*).

Therefore, Applicants respectfully submit that Claims 1, 3, 9 and 11 are not anticipated under 35 U.S.C. § 102(e) by the Anderson reference.

Applicants respectfully disagree with the Examiner's reasoning of obviousness under 35 U.S.C. § 103(a) with reference to Anderson. Section 2142 of the MPEP indicates that a *prima facie* case of obviousness is established only when:

- (1) all of the claim limitations are either taught, or suggested by the cited prior art;
- (2) there is some suggestion or motivation to modify or combine the cited prior art references; AND
- (3) there is a reasonable expectation of successfully producing the claimed invention via such a combination.

Section 2143 of the MPEP further explains that "[t]he teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in applicant's disclosure."

Applicants respectfully assert that because neither of the three prongs set forth in the above test are satisfied, a *prima facie* case of obviousness is not established.

Particularly, as set forth in discussion *supra*, on anticipation under 35 U.S.C. § 102(e), it is clear that all of the claim limitations are neither taught nor suggested by the cited prior art, i.e., Anderson. Therefore, the first prong of the obviousness inquiry is not satisfied.

Further, the Examiner states that Anderson shows a method for forming multi-layer coatings that have improved interlayer adhesion. In the method of Anderson, on the primer-precoated substrate, a primer/surfacer and a gray solvent-borne

primer are applied by spray application. A water-borne silver basecoat (claimed metallic effect pigment basecoat) is applied on said primer. A powdered clear coating is then applied. The interlayer adhesion of the coatings is improved by the inclusion of adhesion promoters. The Examiner states that such a multi-layer coating could be used for automotive refinishing.

Applicants respectfully submit that the teachings of the entire Anderson reference should be considered, and not just convenient portions, for an obviousness inquiry. Anderson's invention is directed to solving the problem of intercoat adhesion of various layers in a multi-layer coating. Applicants' invention is directed to solving an entirely different problem from that set forth by Anderson. As stated above, Anderson solved an interlayer adhesion problem. Applicants, on the other hand, address the problem of reducing solvent emissions of a refinish coating system. As is well-known, VOC (volatile organic content) of paints is regulated depending upon the paint usage. To reduce such emissions, water-based coating compositions can be used. However, when relatively thick water-based coatings are used for a basecoat layer (generally 40 microns and above), the resulting coating has a poor visual appearance. However, such higher thickness levels of basecoats are needed for coatings that have poor masking ability.

Applicants' solution to this problem is to use two basecoat layers, the first being a solvent-borne basecoat and the second a water-borne basecoat. When this combination of basecoats is top-coated with a lacquer clear-coating, a multi-layer finish is formed having an excellent appearance and superior physical properties. This is clearly illustrated in the Examples section of present application.<sup>1</sup> Example 1 shows a multi-layer coating formed according to the process of this invention utilizing a first solvent-borne basecoat layer and a second water-borne basecoat layer top-coated with a clear lacquer. Example 2 shows a multi-layer coating, but only with a water-borne basecoat and a clear lacquer top-coat. The Table on page 11 of Applicants' specification shows a comparison of the coated panels of Examples 1 and 2 wherein the appearance, gloss, flow, and hardness of Example 1 (the invention) are significantly better than the use of only a water-borne basecoat layer (Example 2), which is a surprising and unexpected result. The use of only water-borne basecoat instead of a combination of a solvent-borne and a water-borne (in

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<sup>1</sup> See pages 10-11 of the specification of the present application.

comparable layer thicknesses) has disadvantages regarding e.g., topcoat quality and masking capacity. Especially the problem regarding masking capacity in a repair coating process is not mentioned in Anderson. Thus, Applicants have accomplished both a reduction of VOC and have improved the appearance and physical properties of the multi-layer finish with their claimed process. This certainly has not been taught or suggested by Anderson. Therefore, the second prong of the obviousness inquiry, outlined above, is not satisfied.

Further, in the Office Action, the Examiner has equated a primer and primer/surfacer to a basecoat. Applicants respectfully assert that a hypothetical person skilled in the pertinent art would not interpret a primer and/or a primer/surfacer as same as a basecoat. Primers or primer/surfacer and basecoats are distinct and serve entirely different purposes in a multi-layer coating system.

To further accentuate this point, Applicants have provided the following documents for the Examiner's review:

- (1) **Automotive Paints and Coatings, Edited by G. Fettis, VCH publication (1<sup>st</sup> Edition), pp 120-121, and**
- (2) **Ullmann's Encyclopedia of Industrial Chemistry (5<sup>th</sup> Edition, Vol. A, pp 517-519).**

In the Automotive Paints and Coatings document, various layers of a typical multi-layer automotive coating are set forth and identified. Fig. 5-1 pictorially shows the various layers and in particular, the primer layer, the primer/surfacer layer, the basecoat layer and topcoat layer. The primer/surfacer layer fills in voids and provides a smooth surface that can be sanded, if necessary. However, this layer does not provide color to the resulting multi-layer finish. As shown in Anderson, this is the gray layer. The basecoat layer is the color-providing layer of the multi-layer coating. The basecoat layer is not sanded or treated in any manner but is top-coated with a clear protective layer. Thus, each of the layers of a multi-layer coating have a special purpose and are significantly different from each other.

Similarly, Ullmann's Encyclopedia discusses multi-layer automotive paint coatings comprising primers, intermediate coats (also called fillers or surfacers) and topcoats comprising a basecoat and a clear coat. This combination is the most popular topcoat used on automobiles today. The topcoat provides a full, deep gloss (wet look), high-brilliance metallic effects, long-lasting chemical and weathering resistance, and ease of polishing and repair. Thus, the purpose of a topcoat



comprising a basecoat/clear coat combination is very different from that of the primer surfacer layer.

However, the Examiner, in the present Office Action (by virtue of incorporation of the Office Action of July 26, 2005) equates the gray solvent-borne primer to a basecoat. As pointed out previously, these are two different layers not functionally or structurally interchangeable.

Arguably, and although not actually supported by the Anderson reference, if the gray solvent-borne primer/surfacer were applied first as suggested by the Examiner, followed by the water-borne basecoat, a multi-layer composition of Example 2 of Applicants' specification would result. And to provide an adequate concealment of the gray solvent-borne primer/surfacer, an extra-thick coating of the water-borne basecoat would have to be applied. As shown in the comparative Example 2, this results in inferior appearance and physical properties of the multi-layer coating when compared to the invention that is set forth in Example 1. There is no teaching or suggestion in Anderson to provide for two layers of basecoat, the first, a pigmented solvent-based coating layer and the second, a water-based coating layer as required by the present Application. Thus, there is NO reasonable expectation of successfully producing the claimed invention via such a combination as suggested by the Examiner. The third prong of the obviousness inquiry is also not satisfied.

Therefore, the obviousness rejection based on Anderson can not stand and should be withdrawn and the claims allowed.

(II) U.S. PATENT NO. 6,592,999 TO ANDERSON, ET AL., IN VIEW OF U.S. PATENT NO. 5,073,370 TO KUBITZA ET AL., AND U.S. PATENT NO. 5,466,286 TO BRISELLI, ET AL.

Claims 4 and 5 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson, in view of U.S. Patent No. 5,075,370 to Kubitza, *et al.* (*hereinafter* "Kubitza"), and U.S. Patent No. 5,466,286 to Briselli, *et al.* (*hereinafter* "Briselli"). Neither Kubitza nor Briselli, nor the combination of these patents make up for the many deficiencies of Anderson.

Specifically, the Examiner states that although Anderson fails to teach that the solvent-borne primer is a two-component coating composition, Kubitza teaches that

“organic solvent based two-component polyurethane paints. . .are extensively used in the coating field.” Therefore, according to her, “[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to have used organic solvent based two-component polyurethane paints. . .as solventborne two-component primer in Anderson. . .”

Applicants would like to point out that Applicants’ Claims 4 and 5 are directed to basecoats AND NOT TO primers. Also, as pointed out *supra*, as understood by a person of ordinary skill in the pertinent art, a primer is distinct from a basecoat. And not only that. They also serve different functions. Primers are NOT basecoats and are not considered as interchangeable. Kubitza merely discloses that polyisocyanates can be used in coatings. Applicants’ process for forming a multi-layer coating wherein the basecoat is a two-layer basecoat of (1) a solvent-borne basecoat, and (2) a water-borne basecoat, is not even mentioned. Applicants respectfully submit that combining Kubitza with Anderson is not relevant to Claims 4 and 5 of their invention. And to that end, Applicants respectfully disagree as to the alleged obviousness of their invention.

Similarly, Briselli shows a single water-borne basecoat being applied to a two-component polyurethane primer/surfacer. As pointed out previously, in the pertinent art, a primer is not a basecoat and even a primer/surfacer is not a basecoat. Therefore, all of the claim limitations are not taught in the references, i.e., prong I of obviousness inquiry not satisfied.

Secondly, the references do not provide any motivation to combine the references, and in fact such combination may not even be relevant. Finally, as pointed out *supra*, even if arguably such a combination were made (without any motivation or incentive to combine of course), such a combination will not have any reasonable expectation of success. Comparative Example 2 of the Applicants’ disclosure bears testimony to this failure, in fact. Example 2 shows the inferior result both in appearance and in physical properties, when only one basecoat was used, as suggested by the Examiner.

Applicants respectfully submit that a *prima facie* case of obviousness is not established as a result. Therefore, the rejection based on the above combination of references can not stand and should be withdrawn and the claims allowed.

(III) U.S. PATENT No. 6,592,999 TO ANDERSON, ET AL., IN VIEW OF U.S. PATENT No. 5,073,370 TO KUBITZA ET AL., U.S. PATENT No. 5,466,286 TO BRISELLI, ET AL. AND U.S. PATENT No. 5,976,343 TO SCHLAAK

Claim 6 was rejected under 35 U.S.C. § 103(a) over Anderson, *supra*, in view of Kubitza, *supra*, Briselli, *supra* and U.S. Patent No. 5,976,343 to Schlaak (*hereinafter* "Schlaak"). The many deficiencies of Anderson, Kubitza and Briselli have been pointed out above and will not be repeated. As for Schlaak, it does not overcome the deficiencies of these references even if combined therewith, although no such combination is suggested by Schlaak.

Schlaak adds nothing to the teaching of the already cited patents. Schlaak merely states that primers can contain crosslinking agents and a variety of pigments and can be topcoated with water based color and/or effect-providing lacquers and that color-providing pigments can be used in these lacquers. There is no teaching or suggestion of Applicants' invention of using two basecoats, a solvent-borne basecoat and a water-borne basecoat, and finally coating with a clear lacquer to form a multi-layer coating. As discussed previously, this gives a significantly better appearance and physical properties in comparison to multi-layer coating that only uses a water-borne basecoat, as taught by Schlaak.

Therefore, again, as the *prima facie* case for obviousness is not established, the rejection of Claim 6 based on the above combination of references should be withdrawn and the claim allowed.



### CONCLUSION

In view of the above remarks, Applicants respectfully submit that stated grounds of rejection have been properly traversed, accommodated, or rendered moot and that a complete response has been made to the Office Action mailed on December 20, 2005.

Therefore, Applicants believe that the application stands in condition for allowance with withdrawal of all grounds of rejection. A Notice of Allowance is respectfully solicited. If the Examiner has questions regarding the application or the contents of this response, the Examiner is invited to contact the undersigned at the number provided.

Should there be a fee due which is not accounted for, please charge such fee to Deposit Account No. 04-1928.

Respectfully submitted,



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